# Digital amplifier 70FA888/00R/05R

**DFA888/00R/05R** 



# rvice Manua

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#### **SPECIFICATION**

General Nominal value Typical value : 220V ~ (/00R) : 220V ~ (/00R) Mains voltage : 110/120/220/240V ~ (/01R) :  $110/120/220/240V \sim (/01R)$ : 240V ~ (/05R) : 240V ~ (/05R) : 50 - 60 Hz : 50 - 60 Hz Mains frequency Power consumption : 330W : 330W Dimensions (WxHxD) : 420 x 118 x 334 mm : 420 x 118 x 334 mm Weight : 10.5 kg : 10.5 kg **Amplifier** : 80W in 8 $\Omega$  (IEC) : 85W in  $8\Omega$  (IEC) Output power Distortion T.H.D.  $: \le 0.03\%$  at 1 kHz  $: \le 0.008\%$  at 1 kHz 0.03% at 63 Hz - 12.5 kHz  $: \le 0.02\%$  at 63 Hz - 12.5 kHz : ≤ 0.01% at 60/7000 Hz 4:1 : ≤ 0.03% at 60/7000 Hz 4:1 Intermodulation Frequency characteristic Phono input : from 20 Hz - 20 kHz  $\pm 1$  dB (IEC/RIAA) : from 20 Hz - 20 kHz  $\pm 0.5$  dB (IEC/RIAA) tone control Other inputs neutral : from 10 Hz - 50 kHz ±1 dB : from 10 Hz - 60 kHz ±1 dB : at 100 Hz +8 dB to -8 dB Bass control : at 100 Hz +8 dB to -8 dB  $\pm 1$  dB : at 10 kHz +8 dB to -8 dB : at 10 kHz +8 dB to -8 dB  $\pm 1$  dB Treble control : at 100 Hz +6 dB ±1 dB Loudness : at 100 Hz +6 dB Tap position Tap position : at 10 kHz +4 dB ±1 dB : at 10 kHz +4 dB Signal/noise ratio weighted (A-curve) Phono input (MM) : for 80W output ≥ 80 dB (IEC) : for 80W output ≥ 83 dB (IEC) : for 80W output ≥ 70 dB (IEC) : for 80W output ≥ 72 dB (IEC) (MC) : for 80W output ≥ 85 dB (IEC) : for 80W output ≥ 89 dB (IEC) Other inputs : at 1000 Hz ≥ 65 dB : at 100 Hz ≥ 70 dB Channel separation : at 250 Hz - 10 kHz  $\ge$  55 dB : at 250 Hz - 10 kHz  $\ge$  45 dB Input sensitivity/Input impedance Audio Phono : 2.5 mV/47  $k\Omega$ : 2.5 mV/47  $k\Omega$ (MM) (MC) : 250  $\mu$ V/150 $\Omega$ :  $250 \,\mu\text{V}/150\Omega$ Tuner/CD/Aux/Tape : 150 mV/17 k $\Omega$ : 150 mV/20 k $\Omega$ TV/Video : 150 mV/17 k $\Omega$ : 150 mV/20 k $\Omega$ Output level/Output impedance : 450 mV/590 $\Omega$  (Phono 7.75 mV : 450 mV/590 $\Omega$  (Phono 7.75 mV Tape 1 kHz input) 1 kHz input) **Digital Section** Frequency characteristic : from 10 Hz - 20 kHz ±2.0 dB : from 10 Hz - 20 kHz ±1.0 dB Distortion (T.H.D.) : 0.008% at 1 kHz : 0.0035% at 1 kHz Signal/noise ratio

(GB)

weighted (A-curve)

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.



Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde worden toegepast.



Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden für Reparaturen sind Original-Ersatzteile zu verwenden.

: 106 dB at tape out

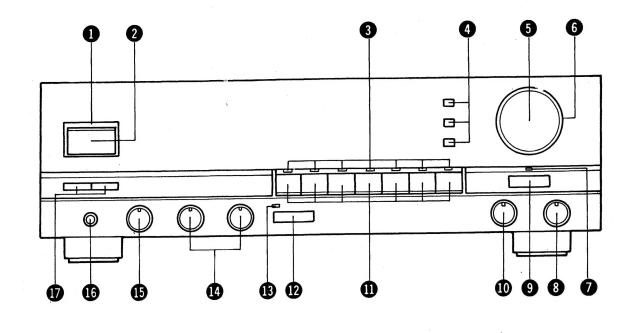


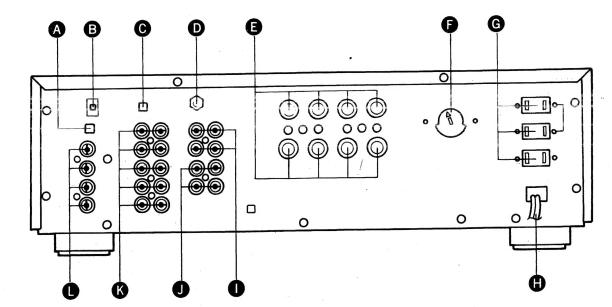
Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati pezzi di ricambiago identici a quelli specificati.



Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

: 100 dB at tape out





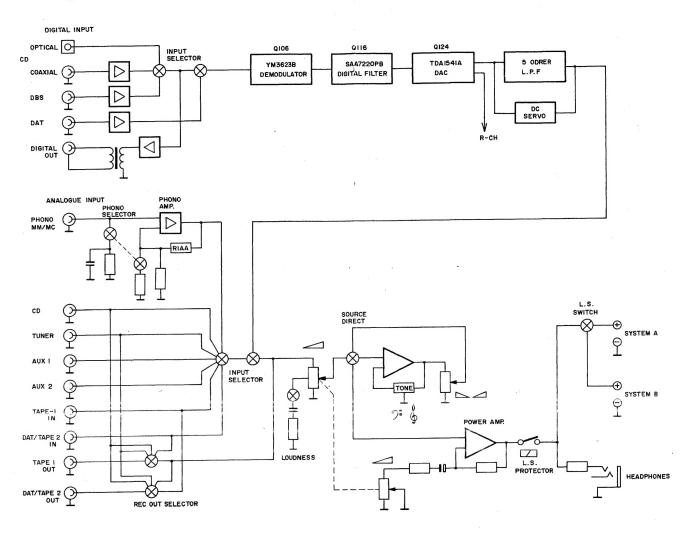
# CONNECTIONS AND CONTROLS

1	Mains indicator	VZ01	Α	CD input selector switch	S101
2	Mains switch	S901	В	CD (Opt.) input	J101
3	Function indicator	DU01~DU05,	C	Phono selector switch	S401
3	Function indicator	DU09, DU10	Ď	Ground terminal	J053
		DU61~DU63	E	LS output	JW01
4	Sampling frequency indicator		_		J091
5	Volume control	RG19	F	Voltage selector (/01R only)	
6	Volume illumination	VZ51, VZ52	·G	AC outlet (/01R only)	J051
7	Digital indicator	DU06	Н	Mains cord	W001
8	Balance control	RE51	1	Tape 1 play/rec.	JJ01
_	= *··-·	SU08	1	DAT/tape 2 play/rec.	JJ02
9	Digital switch		J	•	JV01, JV02
10	Loudness switch	SE51	K	Analogue input	•
11	Function switch	SU01~SU07	L	Digital input	J102
12	Source direct switch	SU09			
13	Source direct indicator	DU07			
14	Tone control	RE21, RE22			
15	Rec selector	SE01			

JW81

SW51

#### **Block Diagram**



#### **ADJUSTMENT**

#### **Idling Current**

lulling Current						
SK	⊗→ SIGNAL	то	VOLUME	Z* ADJUST	OSCILLOSCOPE	D.C. METER INDICATOR
			1	Lch R751		Lch TP2(+), TP1(–) DC 7 mV (19.4 mA)
			Min.	Rch R752		Rch TP4(+), TP3(-) DC 7 mV (19.4 mA)

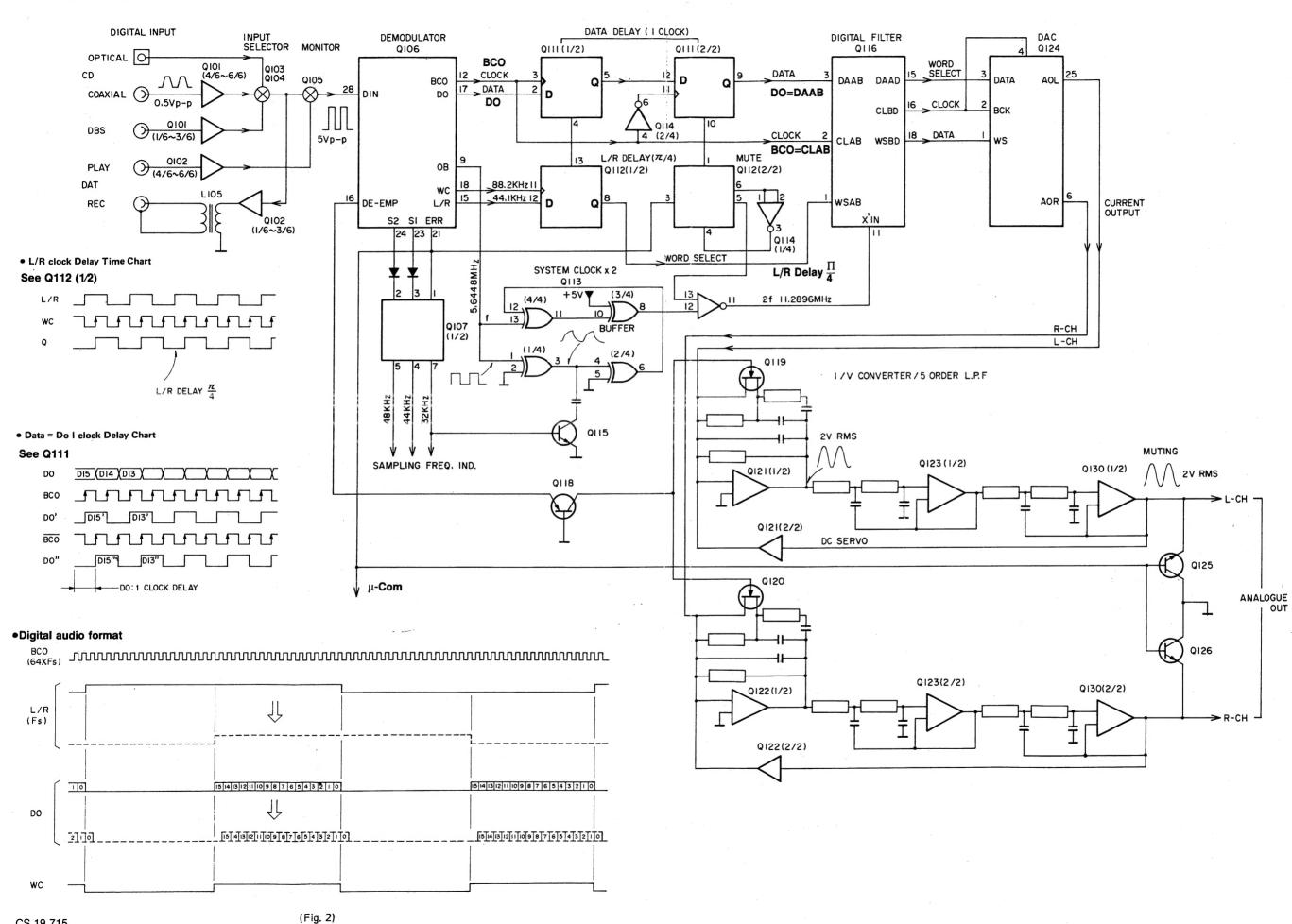
<sup>\*</sup>Adjustment must be made approx. one (1) minute after power switch has been turned on.

16

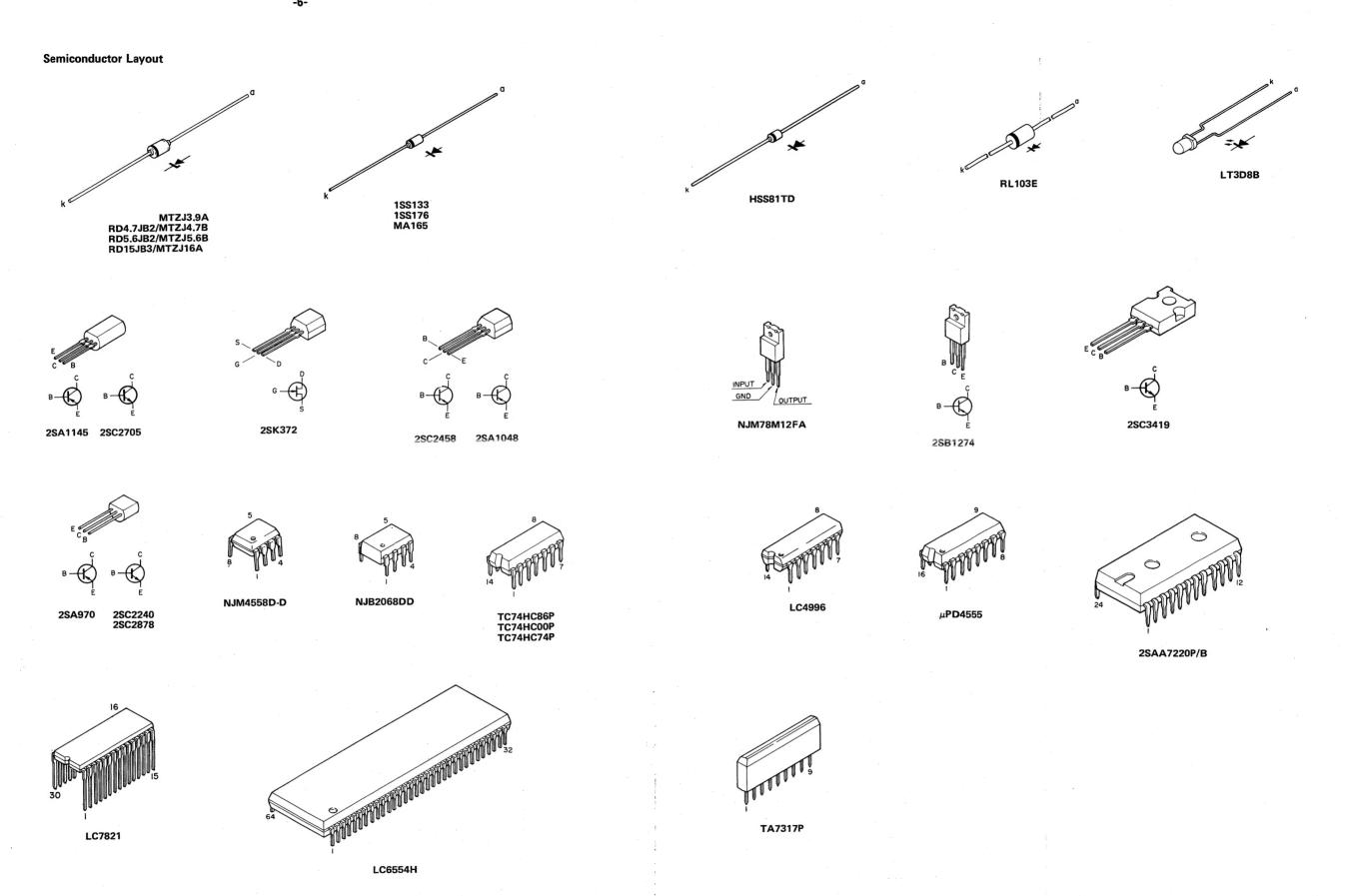
17

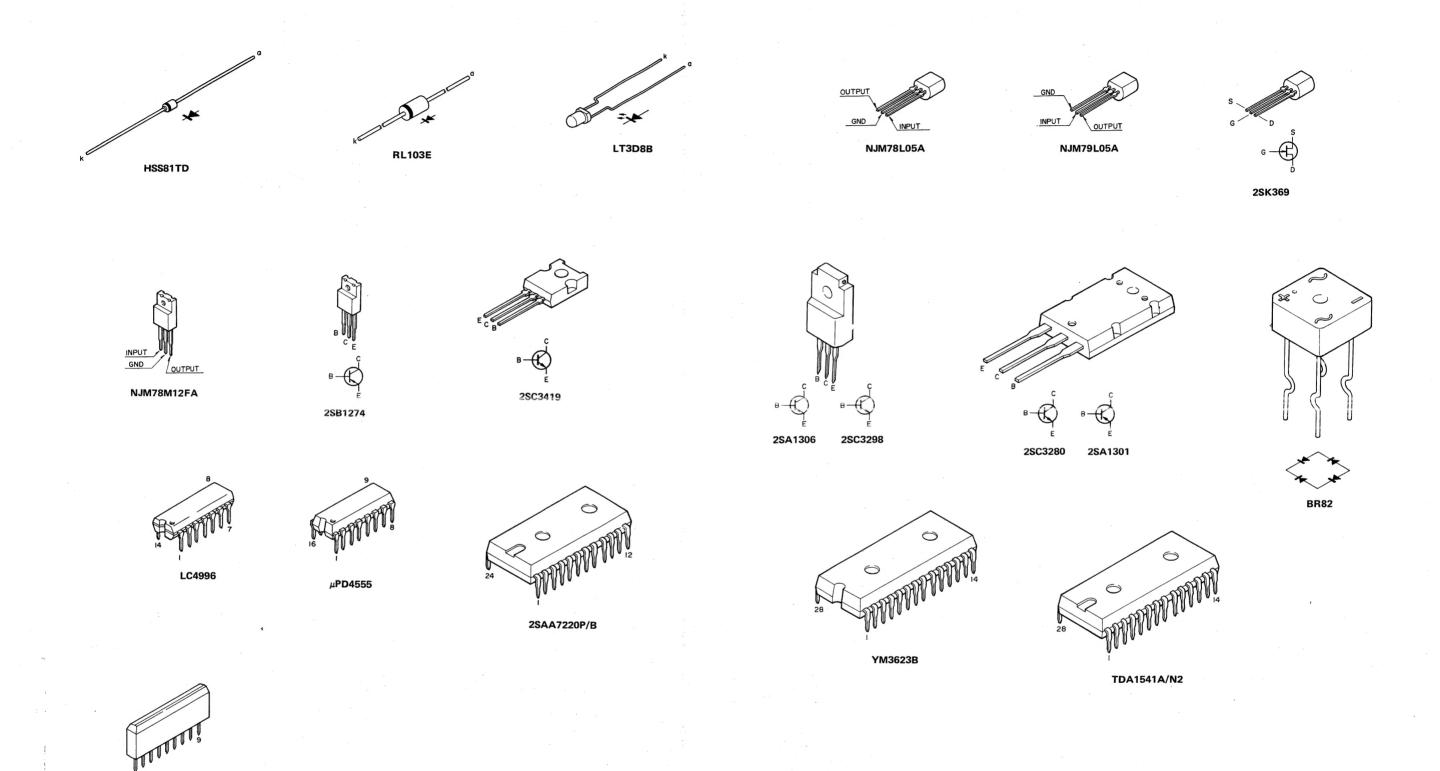
LS switch

Headphone socket



2SA13

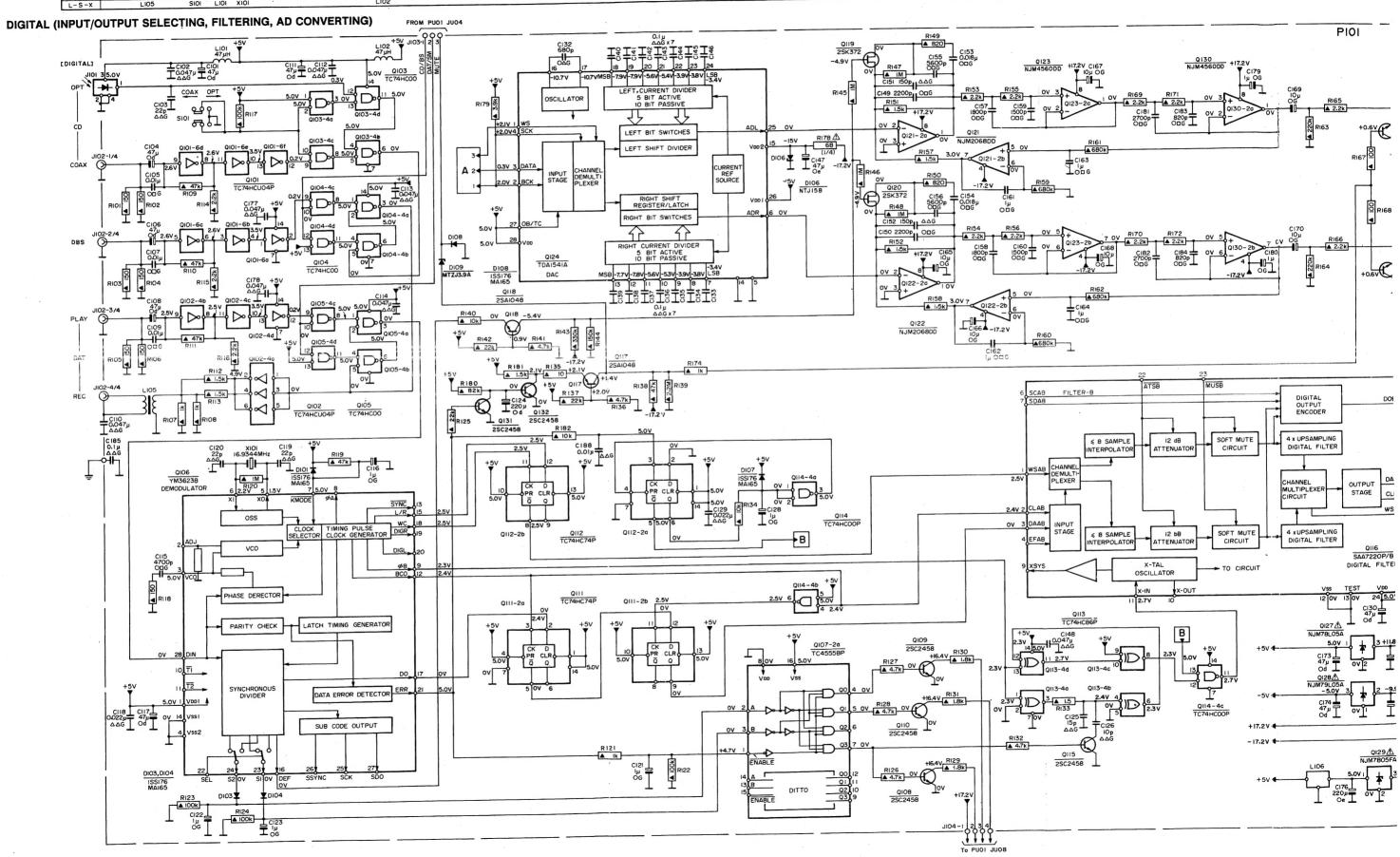




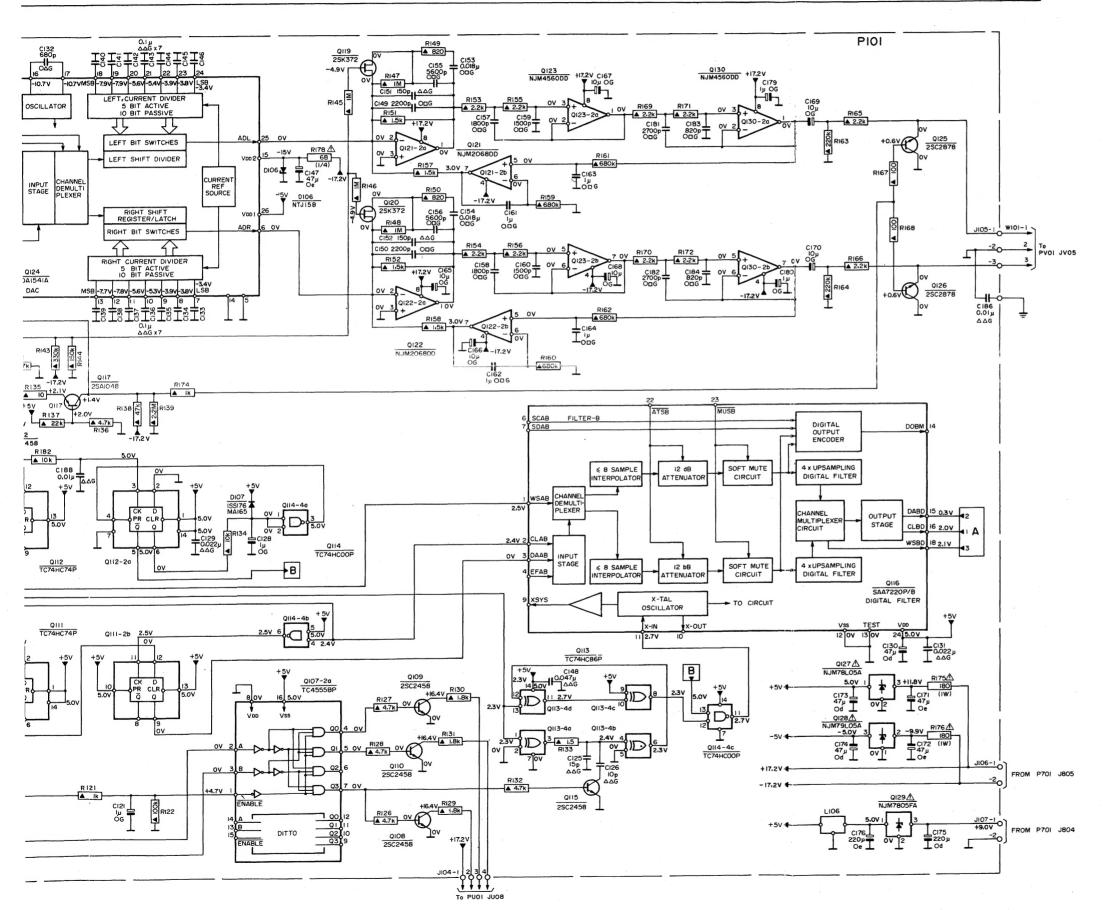
TA7317P

1C86P 1C00P 1C74P

		Pi78 Ri26 ~ Ri	31 RI45∼RI60 RI32	RI33 RI61 RI62	KIOS IO KIIZ	11.00
P RI23 RI24 RI01 ~ RI20	RI25 RI80 RI81 RI36 ~ RI44 RI82 RI21 RI22 RI74	C149 C	CI56 CI57 ~ CI68	CI48 CI25 CI26	CI80 ~ CI84	C179 C169 ~ C176
C C185 C118 C117 C115 C101 ~ C110 C120 C122 C119 C123 C177 C178 C111 ~ C114 C116	C124 C132 C188 C121 C133 ~ C140 C129	DIO7 DIO6 QII4-40 QII4-4b QIO7-20 QI	19 Q120 Q108 ~ Q110 Q121 Q122	Q123 Q113 Q11	Q114 - 4c Q130	QI25 ~
	DIO8 DIO9 Q131 Q118 Q132 Q112 Q111 Q117 Q124	DIO7 DIO6 Q114-48 Q114 45 Q10: 25 T				LI06
L-S-X LI05 SI01 LI01 XI01 LI02						
Q-D QIOI~QIO6 DIO3 DIO4 DIOI	DIO8 DIO9 Q131 Q118 Q132 Q112 Q111 Q117 Q124	BIOT BIOG WITH 45 G.M. 15 G.M.				LI06



₹144 R182		RIZI	RI22	R174			R178	RI26~ RI31	RI45~ RI60	RI32	RI33	RI6I	RI62	RIE	69 ~ RI72		RI63 ~ RI68	RI75 R176	R
CI32 CI88	CI2I		~ CI40	C129	CI28	C147		CI49 ~ CI56	CI57 ~ CI68		C148	CI25	C126		CI80~CI84	C179	CI69 ~ CI76	C186	С
QII2 QIII QII7	0124	0.00	01.10		DI07	DIO6 Q114-40	Q114-4b	Q107-2a Q119 Q120	Q108~Q110 Q121 Q	122		Q123	Q113	Q116	Q114 - 4c	Q130	Qi2	5 ~ QI29	Q-D
4112 4111	dir.																LI06		L-5-X

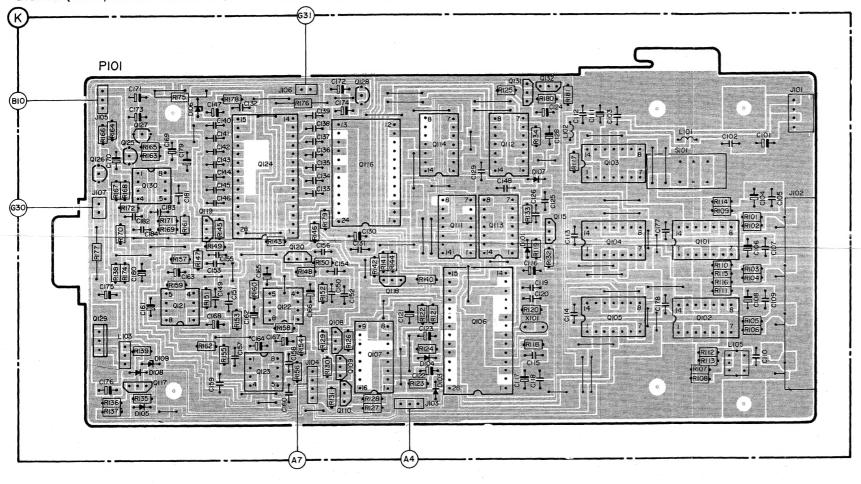


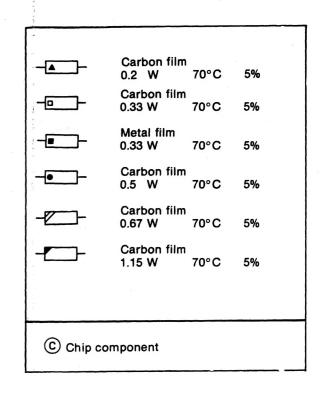
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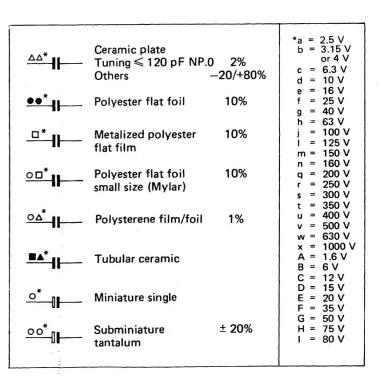
Symbol  $\Delta$  Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol  $\Delta$ . Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

	RI63~RI72	R175	R178 R176	RI46RI79			R125 R134	RI80 .RI81RI17	'			_
R	RI77 RI38RI74	RI57RI6IRI47RI5I	RI49RI45 RI60RI43 RI4	8RI50RI52 RI	142 R141 R140		RI33	R132			RI07∼ RI I6	R
	RI35~RI37 RI39	RI59 RI62 R	155 RI53 RI58 RI58	RI54RI26~RI31	RI21~RI24		RI 18 ^	~ RI20			RIOI∼RIO6	
	C170 C171 C173 C1	69 CI79 CI40~C	0147	CI33~CI39CI72CI74		C129	C148	CI24CI28CI 12	C111ClO3		CIO2 CIOI	
c	CI75 CI80~CI84	CI63 CI53	CI55CI49CI5ICI64~CI67	CI56 CI54 CI31 CI	130 CI21∼CI23		. CI2	6 CI25		C177	CI04~CI I0	C.
	C176 C161	C168	CI62 CI57~ CI60	CI50 CI52				CI 13~CI20		C178		
	QI25~QI27 QI30	Q1 19	Q124 Q120	Q128Q1	116 Q111~Q115		Q131	Q132	Q101~Q105			
٩	Q129 Q11	7 Q	12 I∼Q123	Q107~Q110	Q118	Q106						
D	DIO5 DIO8	DI09 DI06			DI04 DI03		DIOIDIO	7				D
s-x	L103						XIOI	L102		SIOI LIOI	LI05	L-S-X

#### DIGITAL (INPUT/OUTPUT SELECTING, FILTERING, AD CONVERTING)

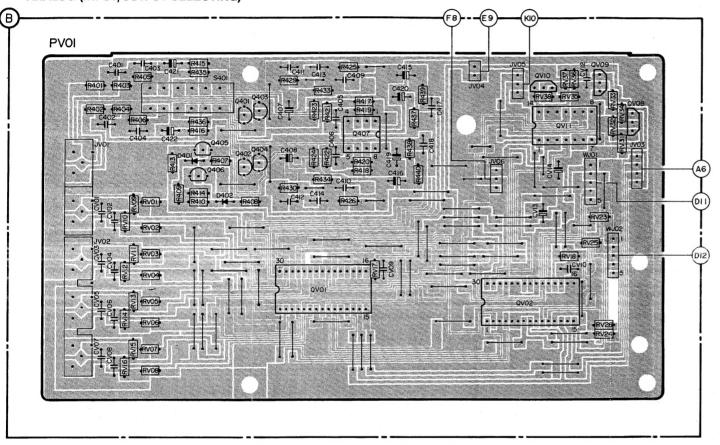


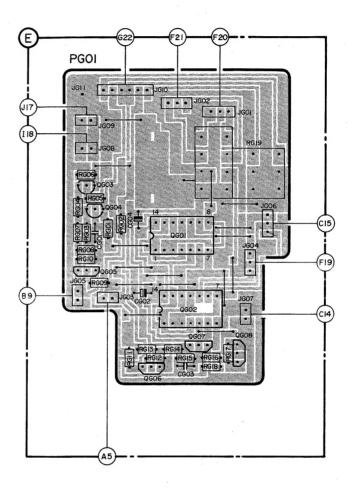


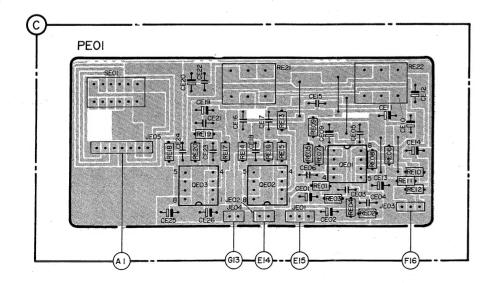


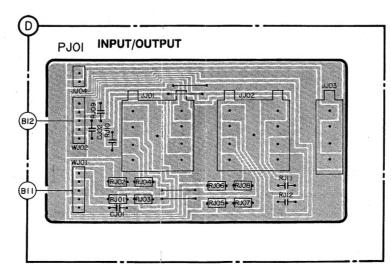
		129 R433 R417∼ R426 R437∼ R440 RV35∼ RV38 RV31↑	
R	RV01∼RVI 6 R435R436	430 R434 RVI7 RVI8 RV23~RV26	RGI I∼RGI8 RGI9 R
	REI3∼RE20 RE21 RE01∼REI2	RE22 RJ0I∼RJ04	RJ05~RJ08 RE53~RE56 RE5I
	C401∼C404 €421	C405~C414 C415~C420 CVI3 CVI4 CVI0CVI2	
С	CVOI CVO8 C422	CV09	C
Γ	CEI9~CE26 CEI5~CEI8 CEOI~CE06	CE09~CE14 CJ02 RJ09RJI0 CJ01	RJI IRJI2 CE51∼CE54
^	Q401~Q406	QV01 Q407 QV02 QV08~QV11	QG03 QG05 QG01QG02
•	QEO3 QEO2 QEO!		QG06 QG08
D	D40I D402		D
S	\$401		SE51 S

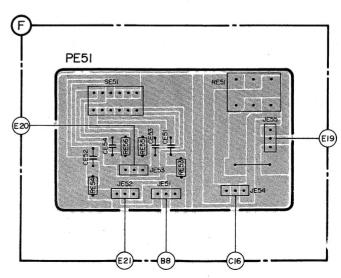
#### ANALOG (INPUT/OUTPUT SELECTING)



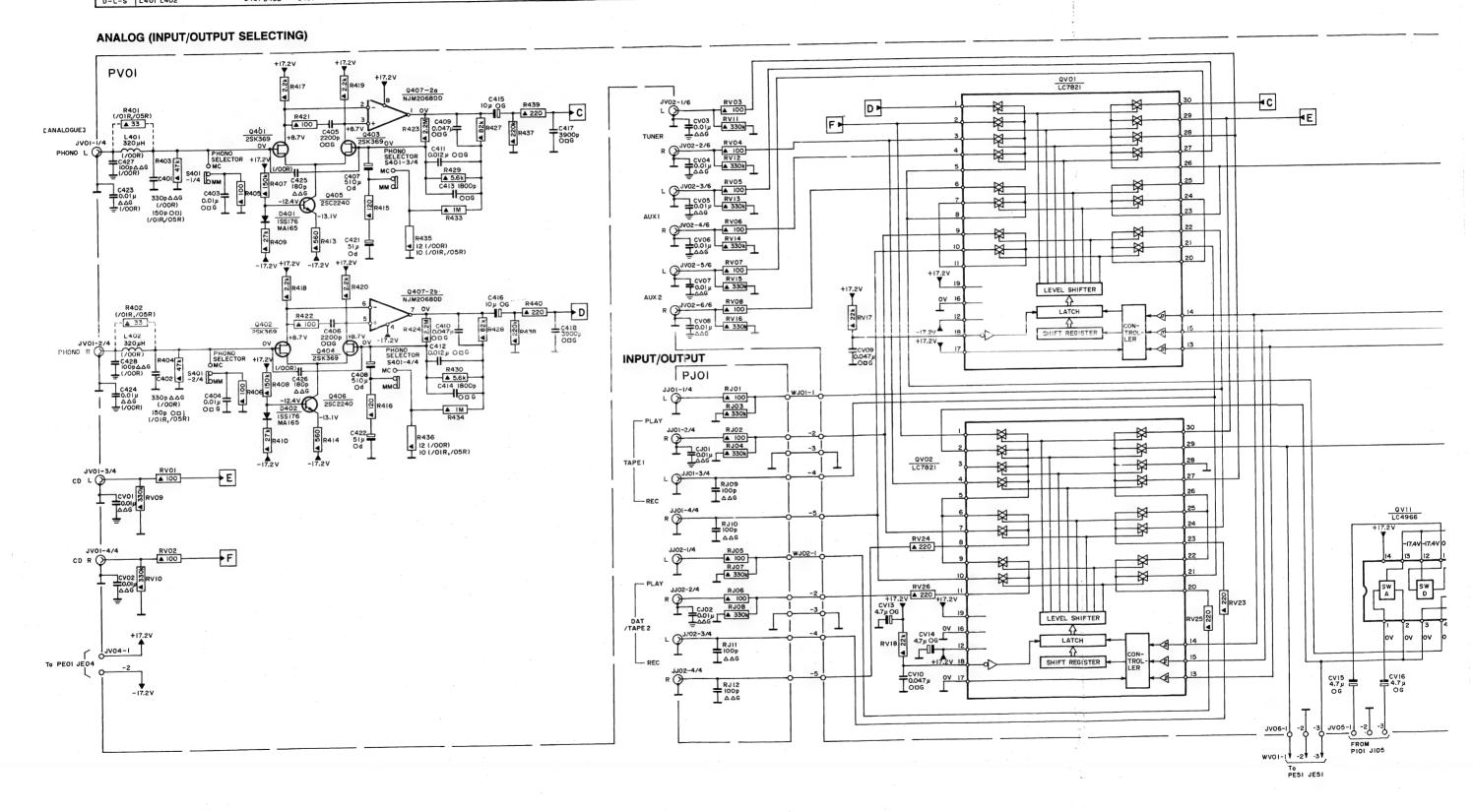




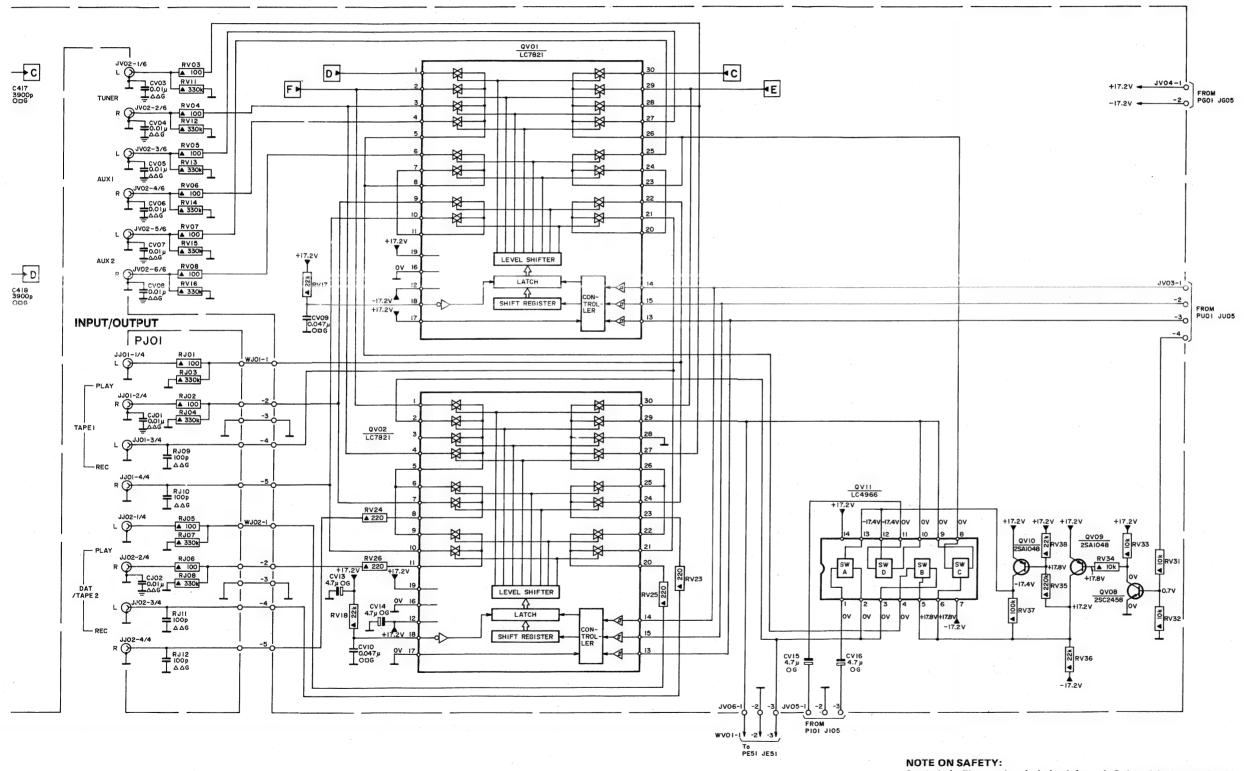




R RV09 RV10 R401~R410 RV01 RV02 R417~R422 R413~R416 R423 R424 R433~R436 R427~R430 R437~R440 RV03~RV08 RV11~RV16 RJ01~RJ12 RV17 RV18 RV24 RV26	CVI5 CVI6
C C423 C424 CV01 CV02 C401~C404 C425 C426 C405~C408 C421 C422 C405~C418 C421 C421 C421 C421 C421 C421 C421 C421	

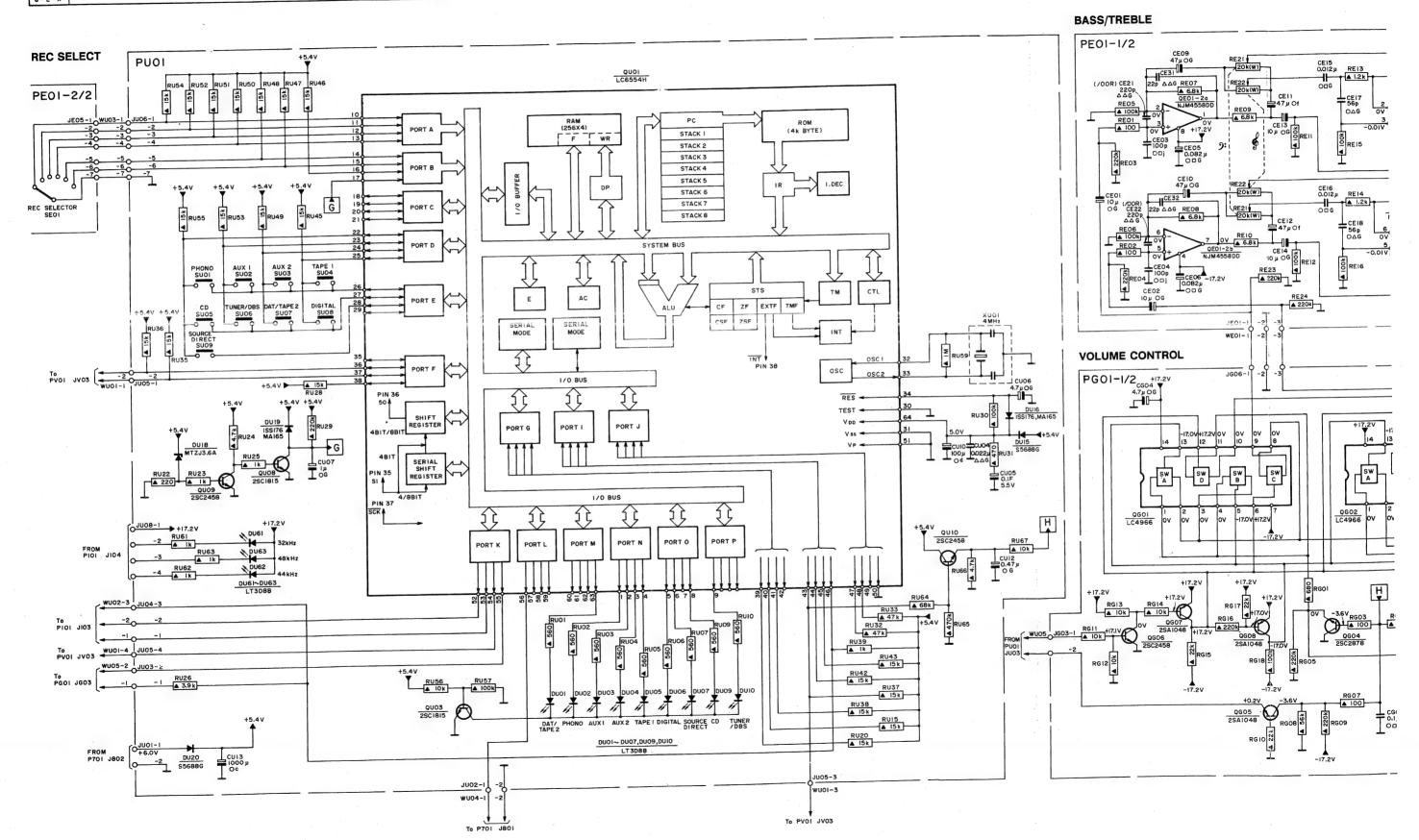


	RV03~RV08 RVII~RVI6 RJ01~RJ12	RV17	RVI8 RV24 RV26		RV25 RV23		RV31~RV38	R
C418	CA03~CA08 C101 C105	CV09	CVI3 CVIO CVI4			CVI5 CVI6		С
				QV01 QV02		QVII	QV08~QVI0	Q
								D-L-S



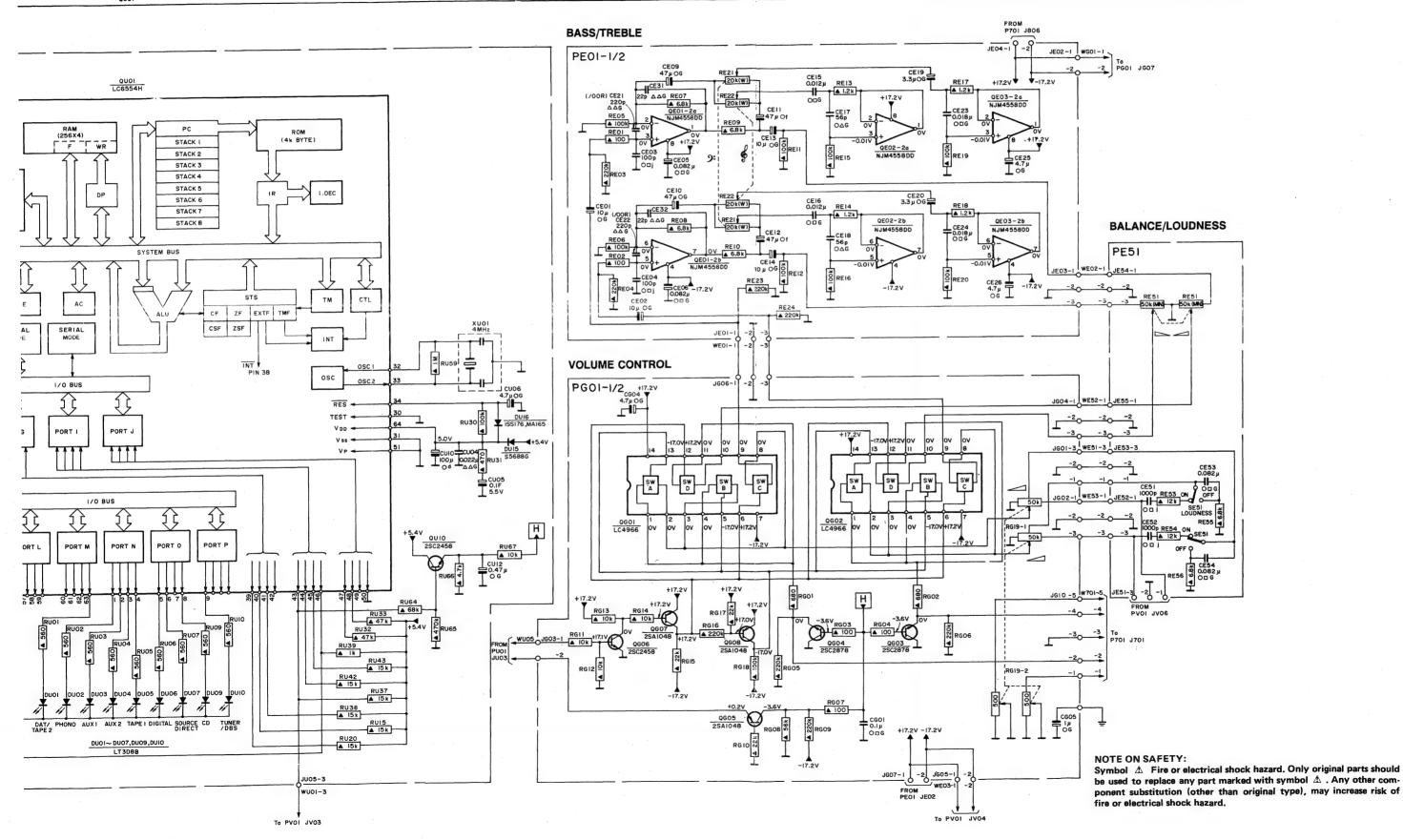
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·			RU59 RU30 RU31	REDI~REIZ REZI~REZ	
PH36 PH35 RU45~RU55			DU37- DU39 DU42 RU43 RU 15 RU20 RU32 RU33 RU64 ~ RU67	RGIO~ RGIB	RGO1~
R RU22~RU26 RU61~RU63 RU29	RU56 RU57	RU01~RU07 RU09 RU10	CU10 CU04~CU06 CU12	CEOI ~ CEO6 CE21 CE22 CG04 CE09 CE10 CE31 CE32	CEII~CEI8
C CU13 CU07		DU01~DU07 DU09 DU10	DUI6 DUI5	QEOL QGOL QGO5~QGOB	QGO2∼QGO4 QE
D-S SE01 DUI8 DU20 SUOI∼SU09 DUGI~DUG3 DUI9  Qu09 Qu08	QU03	QU01	Onio xnoi	423, 231, 231	

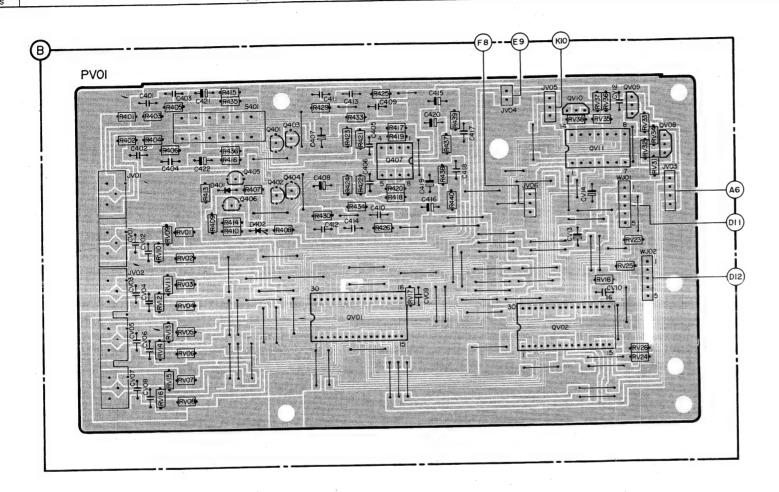


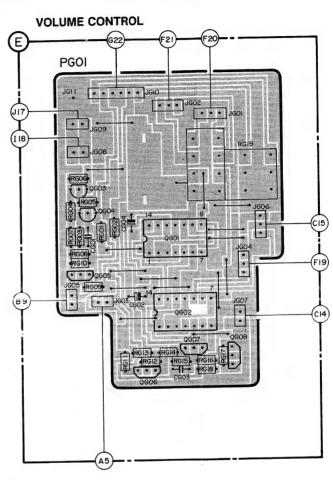
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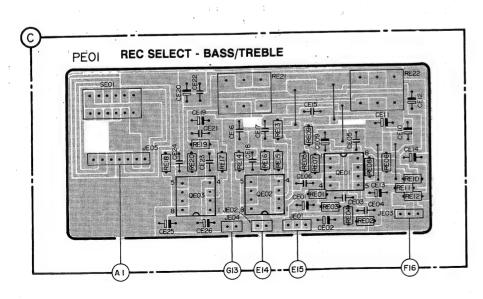
		RU59 RU30 RU31	REOI~REI2 RE21~RE24	REI3~RE20	0	RE51	
		RU37~RU39 RU42 RU43 RU15 RU20 RU32 RU33 RU64~ RU67		RG01~RG09	RG19	RE53~RE56	
RUOI~RUO7	RU09 RU10	CUIO CUO4~CUO6 CUI2	CEOI ~ CEO6 CE21 CE22 CG04 CE09 CE10 CE31 CE32	CEII~CEI8 CGOI	CE19 CE20 CE23~CE26 CG0	05 CE51~CE54	С
	DUO PUIO	DUI6 DUI5				SE51	D-S
DU01~DU07	1	QUIO XUOI	QE01 QG01 QG05~QG08	QG02~QG04 QE02	QE03	:	Q-L-X

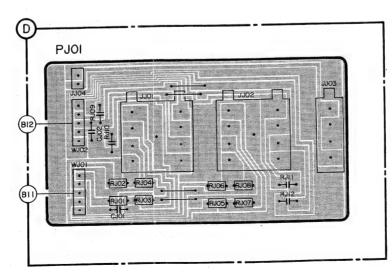


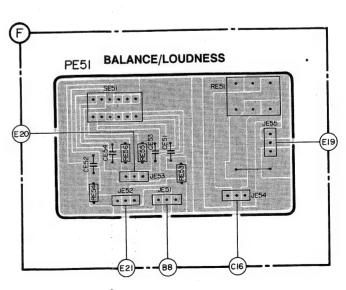
	•		200	RV35 ~ RV38 RV31 ~ RV34	RG0I∼RGIO	R
		R401 ~ R406 R4I3 ~ R4I6 R4I		RVI8 RV23∼RV26	RGI  ~ RGI8 RGI9 RE53~RE56 RE51	
R			5R436 R430 R434 RVI7	RJ01~RJ04 RJ05~RJ08	KESS TREST	
		REI3∼RE20 RE21		CVI3 CVI4 CVIOCVI2		c
		C401~C404 C421	C405~C414 C415~C420 CV09		CE5I∼CE54	
С		CVOI CVO8 C422	CEOI~CEO6 CEO9~CE14	CJ02 RJ09RJI0 CJ0I RJI IRJI2	QG03 QG05 QG01 QG02 '	
		CEI9~CE26 CEI5~CEI8		QV02 QV08~QV11	QG05 QG05 QG08	•
-			9401 - 94-00			D
,		QE03 QE02	QEOI		SE51	S
D		D40I	D402			





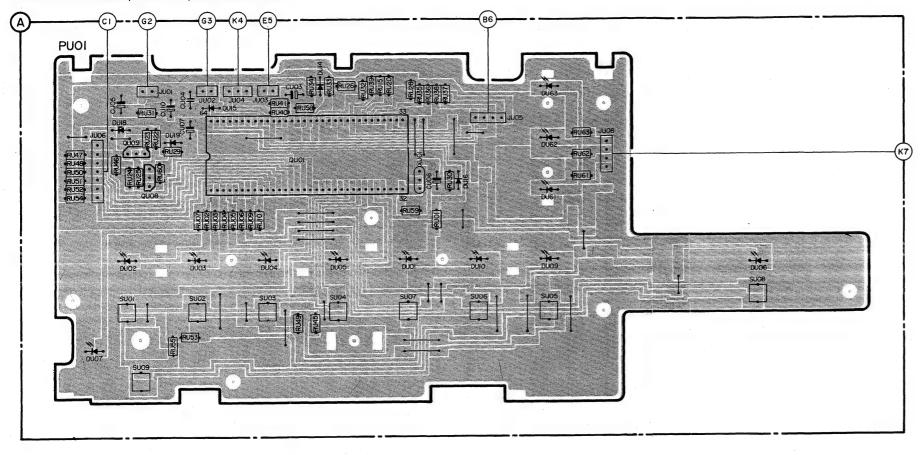


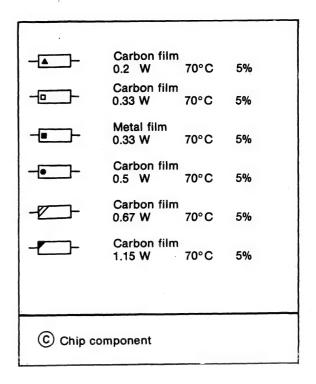




	1	RU46∼RU48 R	U31 RU2	29 RUO	2∼RU07	RU09RUI0RU4	IRU40RU58 RU32~RU	34 RUI5 RU20 RU28 F	RÚ35~RU39	RU61 ~ RU63		R
'	R	RU54 RU50 ~ RU52 RU2	2~ RU2	5RU60RU55	RU53		RU49 RU45 RU26	RU59	RUOI RU30			
	c	CU05	CUIC	CUO4 CUO	7	CI	J03		CU06			C
	0	QU09	2U08				QUOI					Q
	D	DUO7 DUI8 DUO2	DUI	9 DU03	DUI5	DU04	DUI4 DU05	DUOI	DUIG DUIO	. DUO9 DU61∼DU63	DU06	D
s	- x	SUOI SUO	9	SU02		SU03	SU04	SU07 XU	IOI SU06	SU06	\$008	S-X

# MICROPROCESSOR/CONTROL/LED INDICATION



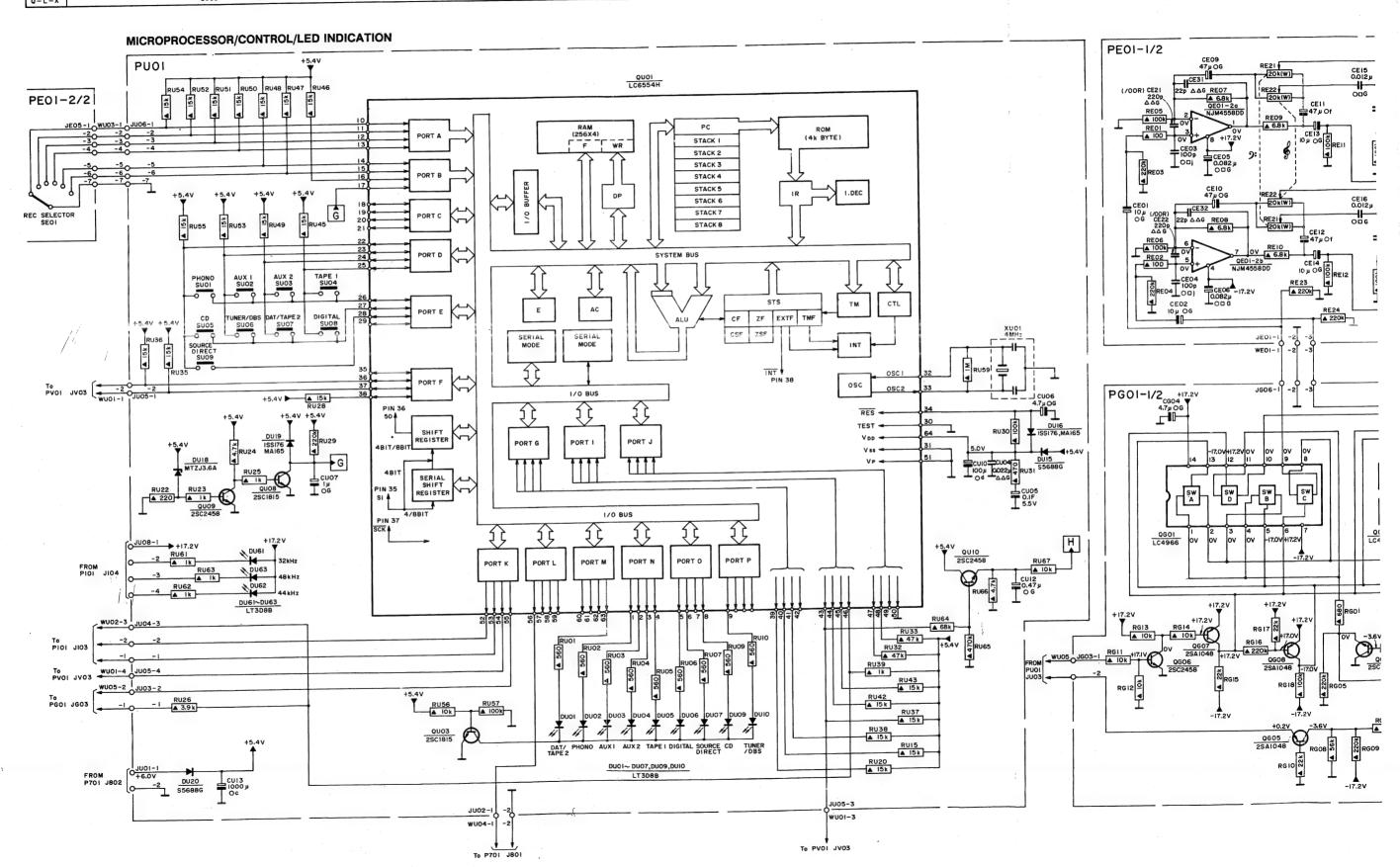


<u> </u>	Ceramic plate Tuning ≤ 120 pF NP.0 Others	2% —20/+80%	*a = 2,5 V b = 4 V c = 6,3 V d = 10 V e = 16 V
***	Polyester flat foil	10%	f = 25 V g = 40 V h = 63 V
*	Metalized polyester flat film	10%	j = 100 V l = 125 V m = 150 V n = 160 V
<u>••</u>	Polyester flat foil small size (Mylar)	10%	q = 200 V r = 250 V s = 300 V
<u>••</u>	Polysterene film/foil	1%	t = 350 V u = 400 V v = 500 V w = 630 V
<u>**</u>	Tubular ceramic		w = 630 V x = 1000 V A = 1,6 V B = 6 V C = 12 V
<u>•*</u> 0—	Miniature single		D = 15 V E = 20 V F = 35 V
<u>°°*</u> 1	Subminiature tantalum	± 20%	G = 50 V H = 75 V I = 80 V

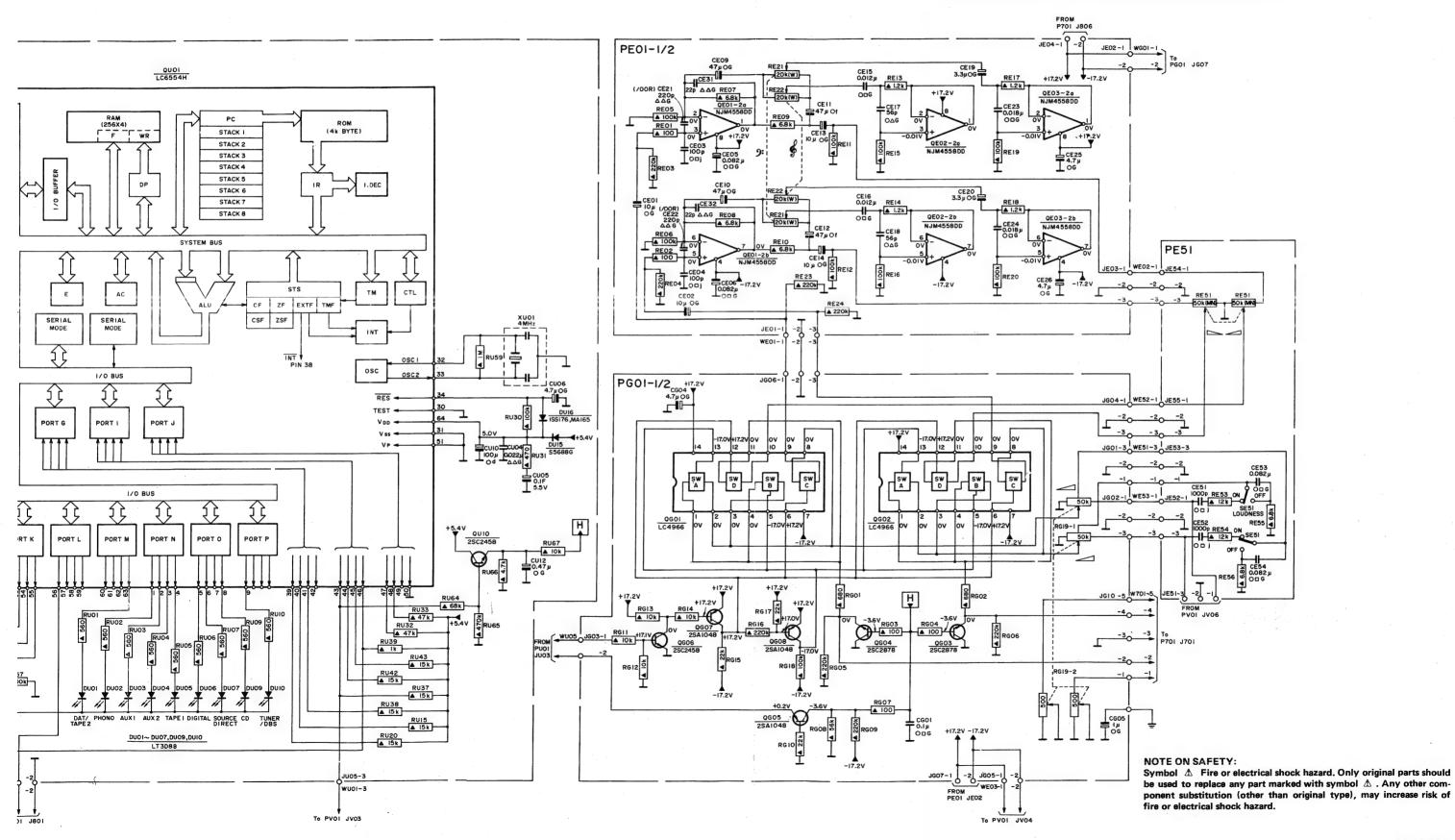
27 037A/C

-27-SCHEMATIC DIAGRAMS

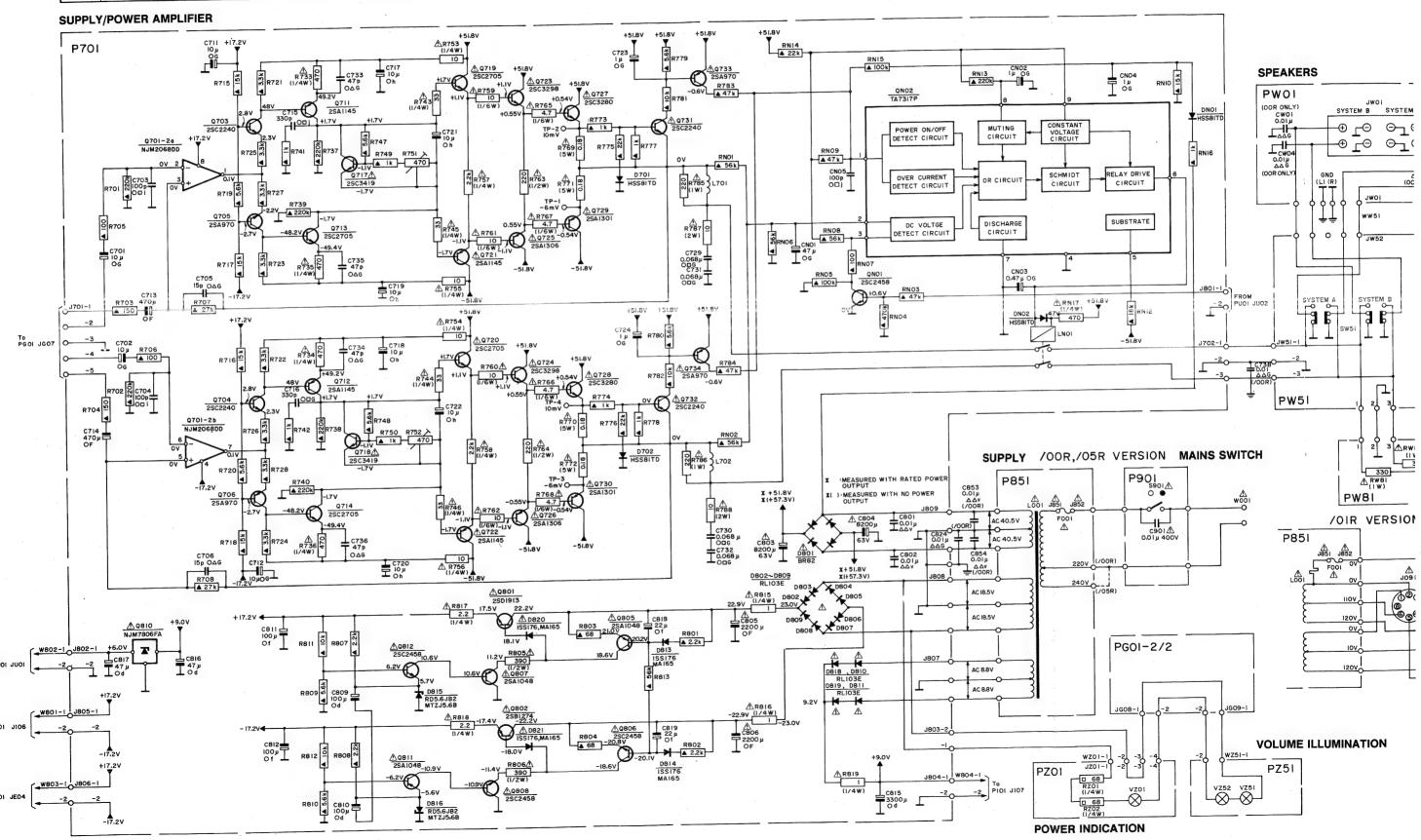
					RU59 RU30 RU31	REOI~REI2 RE21~RE24	
	RU36 RU35 RU45~RU55		RUO1~RUO7	RUO9 RUIO	RU37~RU39 RU42 RU43 RU 15 RU20 RU32 RU33 RU64~ RU67	RG10~RG18	
R	RU22~RU26 RU61~RU63 RU29	RU56 RU57	RUO1~RUU7	ROOS ROIG	CUIO CU04~CU06 CUI2	CEOI ~ CEO6 CE21 CE22 CG04 CE09 CE10 CE31 CE32	CEII~CEI8
С	CUI3 CU07		DUAL BUAT	DU09 DU10	DUI6 DUI5		
D-S	SEOI DUI8 DU20 SUOI~SUO9 DU61~DU63 DU19		DUOI~DUO7		QUIO XUOI	QEOI QGOI QGO5~QGO8	QG02~Q6
0 I - V	80UQ QUQ8	0003	. 0001				



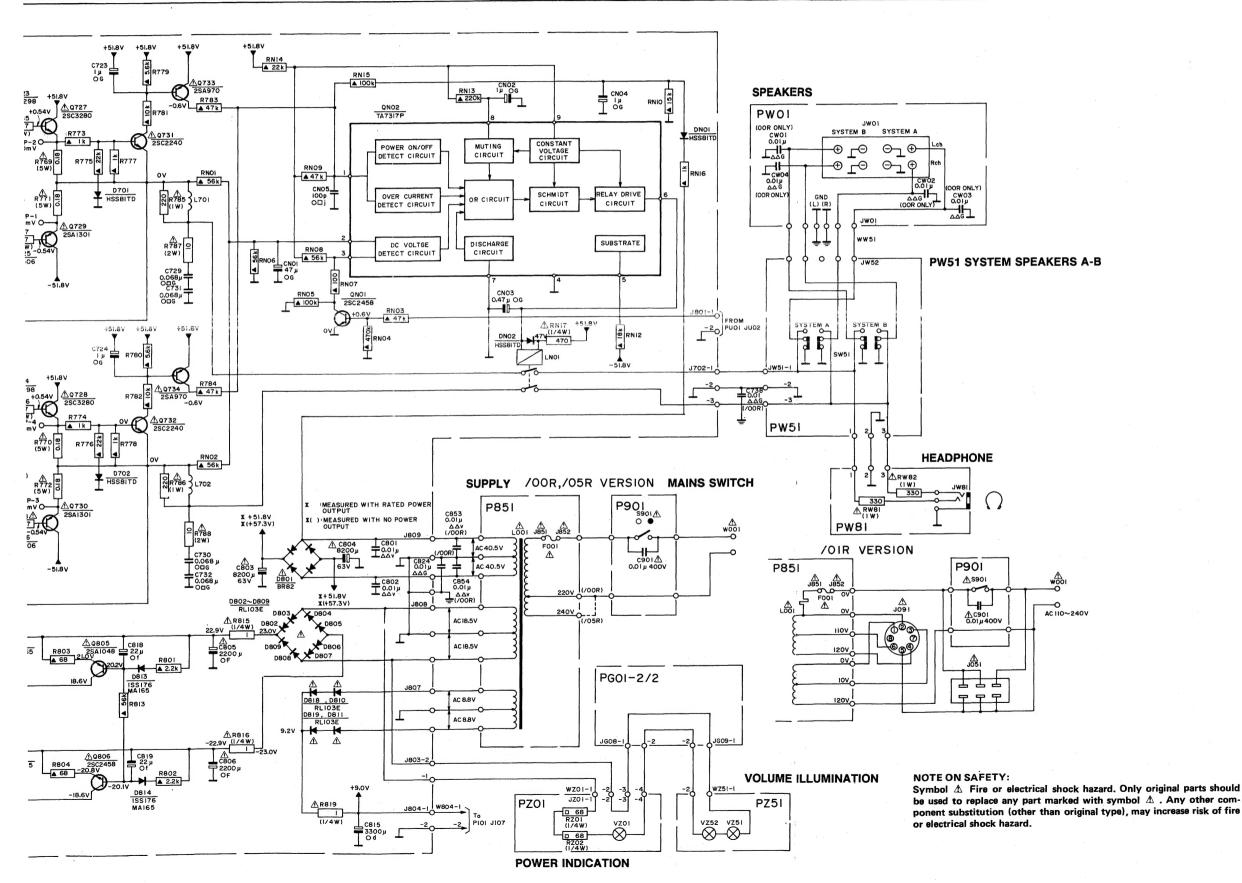
		RU59 RU30 RU31	REOI~REI2 RE2I~RE24	REI3~RE20		RE51	
RUOI~RUO7	RUO9 RU10	RU37~RU39 RU42 RU43 RU15 RU20 RU32 RU33 RU64~ RU67	RGIO~RGI8	RGO1~RG09	RG19	RE53~RE56	
		CUIO CUO4~CUO6 CUI2	CEOI ~ CEO6 CE21 CE22 CG04 CE09 CE10 CE31 CE32	CEII~CEI8 CGOI CEI9 CE20	0 CE23~ CE26 CG05	CE51~CE54	С
DUOI~DUO7	DUO9 DU10	DUI6 DUI5				SE51	D-S
	QUOI	QUIO XUOI	QEOI QG01 QG05~QG08	QG02~QG04 QE02	QE03		Q-L-X



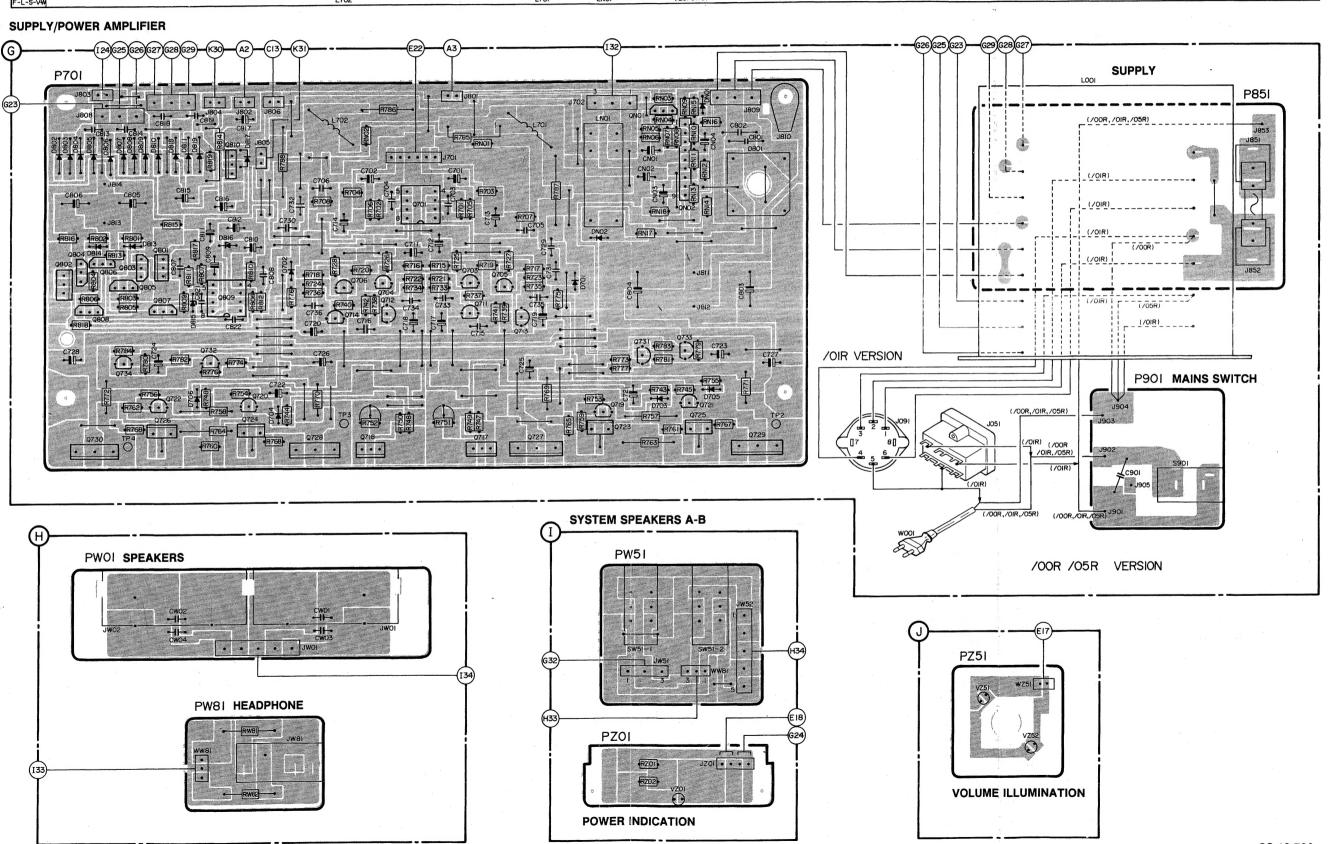
R701~R708 R715~R728 R733~R742 R743~R756 R757~R772 R773~ R788 R815 R816 R819 R201 R202	RW81 R
R R807~R812 R817 R818 R803~R806 R813 T.C. T.C. CNO5 CNO2~CNO4	cwol~cwo4
C70 ← C706 C713 C711 C712 C715 C716 C733 ~ C736 C717 ~ C722 C724 C729 ~ C729 ~ C732 C724 C729 C732 C701 C702 C701 C703 C701 C701 C703 C701 C701 C701 C701 C701 C701 C701 C701	
C714 C817 C816 C809~C812 D801 D701 D702 D813 D814 L701 L702 D801~D811 D818 D819 LN01 DN02 LD01 DN01 LN01 DN02 LD01 DN01 LN01 DN02 LD01 LN01 LN01 LN01 LN01 LN01 LN01 LN01 LN	SW51
D-L Q-S-V Q810 Q701 Q703~Q706 Q711~Q714 Q717 Q718 Q811 Q812 Q719~Q730 Q801 Q802 Q807 Q808 Q805 Q806 Q731~Q734 QN01 QN02 V201 S901 V202 V251	



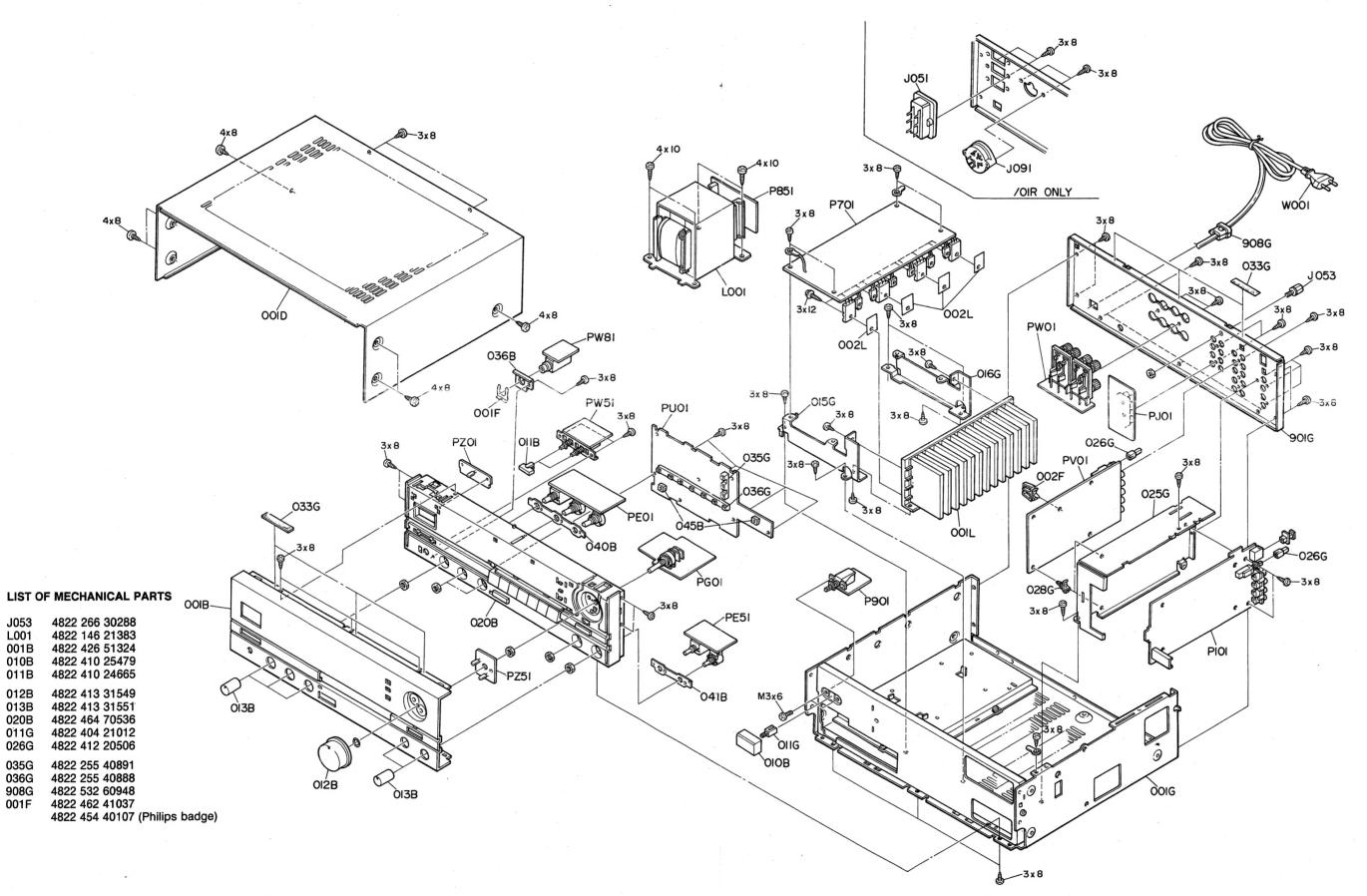
R772	R773~ R788	RNO1 RNO2	RN14 RNC	3~RN09 R	115		RN13	RN17	RN12	RNIO RNI6			R
~R806	R813	R801 R802	R815 R816 R819						RZO1 RZO2			RW81 RW82	
	C723 C724	C729~C732	CNOI	CN05				CN02~CN04				 cwol~cwo4	
	C818 C819			C801~C806	С	815	C824 C853 C854		C90	1 .	C738		
D821	D701 D702 D813 D6	314 L701 L702	D8	01~D811 D818 D	819			LNOI DNO2 LOOI		DNO			D-L
07 9808	Q805 Q806 Q73	I~Q734		QNOI			QN	02		VZ01 \$901	VZ52 VZ51	SW51	Q-S-V



	R8I6 R8I8 R801∼R806 R8I5 R8I7 R8I9 R8I9 R8I2 R788 R708 RN02 R786 R701 R707 R785 RN01 R787 RN03∼ RNI8	- 1
P	R8J3 R784 R780 R782 R776 R774R764R760 R776R718R724 R736R728R740R720R742 R738R725 R734R754R728R740R720R742 R738R725 R734R754 R735 R721R733 R721R734 R731R721R733 R721R734 R731R731 R721R731 R721R	-
1 "	R772 R762R768R756 R748R758 RW8I RW8I RW8IRW82R754R768R744R770 R747~R752 R725R737R719R74IR739 R769R775R765R759R753 R757R763R76IR743R745R755R767 R771	1
	C705 C730 C731 C704 C711 C714 C714 C715 C730 C731 C704 C701 C705 C730 C731 C700 C7015 C70	-l c l
c	COURT COLOR	
,	C728	
	OBO[∼Q808 Q809Q8IO Q703~Q706 Q701 Q711~Q714 QNOI QNO2	-1. Q 1
Q	0730 0734 Q726Q722 Q732 Q724Q720 Q728 Q718 Q718 Q717 Q727 Q719Q723Q731 Q733 Q725Q721 Q729	
	Q100 Q104 Q120Q12E Q10E Q10E Q10E Q10E Q10E Q10E Q10E Q10	D
D	D802 < D81 D814 D815 D816 D819 D815 D816 D817 D817 D817 D817 D817 D817 D817 D817	E-1-C-14-14
F-L-S-VW	L702 L701 LN01 VZ01SW51 W001 VZ51 VZ52 L001 F001	F-L-3-V-W
1 -F-2-A4		



#### **EXPLODED VIEW**



Note: Only the parts provided with a Service codenumber are available as service spare parts

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CE01,CE02, }	4000 404 00574	Con Floats 10E 50V	2SA1301 R or O	4822 130 60109
CE13,CE14	4822 124 22571	Cap. Electr. 10μF 50V	2SA1306 O or Y	4822 130 61358
CE09,CE10, }	4822 124 22276	Cap. Electr. 47μF 50V	2SB1274 Q,R 2SC2240 GR or BL	4822 130 61359 4822 130 43233
CN01 )	4822 124 22698	Cap. Electr. 47μF 25V	2SC2240 GR OF BL	4822 130 43233
CE19,CE20	4822 124 22696	Cap. Electr. 3.3μF 50V	2SC2458 Y or GR	4822 130 60839
CE25,CE26,		•	2SC2705 0 or Y	4822 130 43283
CG02,CG04,	4822 124 22274	Cap. Electr. 4.7μF 50V	2SC2878 A or BR	4822 130 43819
CU06,CV13, CV14			2SC3280 R or O 2SC3298 O or Y	4822 130 60116 4822 130 61362
CG05,			2SD1913 Q,R	4822 130 61363
CN02,CN04,			2SK369 BL	4822 130 42839
CU07,C116,	4822 124 41543	Cap. Electr. 1μF 50V	2SK372 GR/BL	4822 130 42842
C121+C123,	4022 124 41040	cup. Ligoti. Tp. cov	000000	
C128,C179, C180				
CU12,C124	4822 124 22273	Cap. Electr. 0.47μF 50V	LC6554H-3842	4822 209 73955
C165+C170, 1	4022 124 22270	Cap. Licou. 6.47 fil 664	LC4966 LC7821	4822 209 83804 4822 209 72357
C415,			NJM-2068-DD	4822 209 73064
C416,C701,	4822 124 22571	Cap. Electr. 10μF 50V	NJM4558D-D	4822 209 83631
C702,C711,			NJM4560D-D	4822 209 83274
C712		0	NJM78LO5A	4822 209 70082 4822 209 73674
CU05	4822 124 41592	Super Cap. 0.1F 5.5V	NJM7806FA NJM79L05A	4822 209 73674 4822 209 83825
CU10,C809,	4822 124 90353	Cap. Electr. 100μF 10V	TA7317P	4822 209 83312
C810			TC74HC00P	4822 209 72322
CU13	4822 124 22694	Cap. Electr. 1000μF 63V	TC74HCU04P	4822 209 72323
C104,C106,			TC74HC74P TC74HC86P	4822 209 72333 4822 209 73676
C108,C117, C130,C173,	4822 124 22275	Cap. Electr. 47μF 10V	TDA1541A/N2	4822 209 72969
C174,C816,	4022 124 22213	Oap. 210011. 47 µ1 101	μPD4555	4822 209 11767
C817			YM3623B	4822 209 73668
C147,C171, }			2SAA7220P/B	4822 209 72545
C172	4822 124 41539	Cap. Electr. 47μF 16V	<b>→</b>	
C175,C176	4822 124 22814	Cap. Electr. 1000 μF10 V		
C407,C408	4822 124 22279	Cap. Electr. 510μF 10V	BR82 HSS81TD	4822 130 81093 4822 130 80837
C419,C420 C421,C422	4822 124 22274 4822 124 22278	Cap. Electr. 4.7μF 50V Cap. Electr. 51μF 10V	LT3D8B RED	4822 130 80326
C713,C714	4822 124 41541	Cap. Electr. 470µF 35V	MTZJ3.6A	4822 130 80316
C717÷C720	4822 124 22693	Cap. Electr. 10µF 63V	MTZJ3.9A	4822 130 80132
C803,C804	4822 124 22691	Cap. Electr. 8200µF 63V	NTJ15B	4822 130 80322
C805,C806 C811,C812	4822 124 22695 4822 124 41535	Cap. Electr. 2200μF 35V Cap. Electr. 100μF 25V	RL103E RD4.7JB2,MTZJ4.	4822 130 32508 7B 4822 130 33759
C815	4822 124 22697	Cap. Electr. 3300µF 10V	RD5.6JB2,MTZJ5.	
C901	4822 124 33276	Cap. Ceramic. 0.01μF 400V	S5688G	4822 130 80839
1717	•		1SS176,MA165,1S	SS254 4822 130 33305
RE21,RE22	4822 101 30574	Potm. 20K bass, treble	MISCELLANEO	us
RE51	4822 101 30575	Potm. 50K balance, volume		
RG19	4822 102 30466	Potm. 50K master volume	F001	4822 253 40166 Fuse T2-5A 250V
RN17	4822 116 81316	Res. fusible 470Ω 1/4W	JJ01,JJ02	4822 265 30512
RW81,RW82	4822 111 50474	Res. safety 330Ω 1W	JV01 JV02	4822 267 20348
R175,R176	4822 116 60342 4822 116 60527	Res. safety $180\Omega$ 1W Res. safety $1.8\Omega$ 1W	JW01	4822 266 30279 Speaker terminal
R178	4822 115 90314	Res. fuse 68Ω 1/4W	JW02	4822 266 30281 Speaker terminal
R733÷R736	4822 116 81316	Res. fusible 470Ω 1/4W	JW81	4822 267 30617 Headphone jack
R743÷R746	4822 115 90198	Res. fuse 33Ω 1/4W	J053 J101	4822 290 40297 Ground terminal 4822 264 30217 Connector
R751,R752 R753÷R756	4822 100 11426 4822 115 90166	Potm. trimmer $470\Omega$ Res. fuse $10\Omega$ 1/4W	J101	4822 266 30324 Terminal
R757,R758	4822 116 81315	Res. fuse 2.2K 1W	LN01	4822 280 91103 Relay DC 48V
R759÷R762	4822 111 91291	Res. safety 10Ω 1/6W	L001	4822 146 21383 Transf, mains
R763,R764	4822 116 60319	Res. fusible 220Ω 1/2W	L101,L102	4822 157 53801 Coil 147μH
R765÷R768	4822 116 80955	Res. safety 4.7Ω 1/4W	L103 L105	4822 157 53836 Coil 4822 142 60388 Transf, puls
R769÷R772 R785,R786	4822 116 80153 4822 116 60246	Res. metal $0.18\Omega$ 5W Res. safety $220\Omega$ 1W	L701,L702	4822 157 51739 Coil, choke
R787,R788	4822 111 90726	Res. safety 10Ω 2W	SE01	4822 273 80336 Switch, ratary
R815,R816	4822 116 52976	Res. safety 1Ω 1/4W	SE51	4822 273 20307 Switch, ratary
R817÷R818	4822 116 60309	Res. fusible 2.2Ω 1/4W	SU01÷SU09	4822 276 12455 Switch, pushbut 4822 276 12506 Push switch
R819	4822 116 60307	Res. fusible 1Ω 1/4W	SW51 S101	4822 276 12506 Push switch 4822 276 20458 Push switch
			S401	4822 276 20468 Push switch
			S901	4822 276 12026 Push switch
C3419 Y		4822 130 60117	VZ01,VZ51,VZ52	
2SA970 (GR)		4822 130 42949 4822 130 42951	XU01	4822 242 72221 Cer. filter 4 MHz
2SA970 GR o		4822 130 42951 4822 130 60107	X101	4822 242 72334 Cer. filter 16,9344 MHz
2SA1145 O o		4822 130 42999		
L	, ·		<del></del>	CS 10.70